

List of All Chemicals

P Inonotus obliquus

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Part All parts ...	Low PPM	High PPM	StdDev	*Reference
2,6-BIS-(3',4'-DIHYDROXYPHENYL)-3,7-DIOXABICYCLO-[3,3,0]-OCTANE-4,8-DIONE	Plant	--	--		*
3,4-DIHYDROXYCINNAMIC-ACID	Plant	--	--		*
3-BETA-21-DIHYDROXY-LANOST-7,9(11),24-TRIENE	Plant	--	--		*
3-BETA-21-DIHYDROXY-LANOST-8,24-DIENE	Plant	--	--		*
3-BETA-21-DIHYDROXY-LANOST-8,24-DIENE-21-OIC-ACID	Plant	--	--		Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
3-BETA-HYDROXY-LANOSTA-8,24-DIENE-21-AL	Plant	--	--		*
BETA-SITOSTANOL	Plant	--	--		*
BETULIN	Plant	--	--		*

Activities (13)

AntiHIV 6.1 uM	
Anticarcinomic	
Antifeedant	
Antiflu	
Antiinflammatory	Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 6.1 uM	
Aphidifuge	Lugemwa, F.N., Huang, F-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A Heliothis zea Antifeedant from the Abundant Birchbark Triterpene Betulin. J. Agric. Food Chem. 38(2): 493-494.
Cytotoxic 600 ppm	
Cytotoxic 8.6 uM	
Hypolipemic	
Prostaglandin-Synthesis-Inhibitor IC50=119 uM	Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from Menyanthes trifoliata L. Yao Hsueh Hsueh Pao, 30(8): 621-626.
Topoisomerase-II-Inhibitor IC50=38.6 uM	

BIOGLYCANS	Plant	--	--		*
CAFFEIC-ACID	Plant	--	--		*

Activities (102)

Aldose-Reductase-Inhibitor 4 ug/ml (weak activity)	Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.
Allergenic	
Analgesic	
AntiHIV EC50=200 ug/ml	
AntiLegionella	
Antiadenoviral	Economic & Medicinal Plant Research, 5: 207.
Antiaaggregant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiaging	
Antiatherogenic	
Antibacterial	
Anticancer	
Anticarcinogenic	Economic & Medicinal Plant Research, 6: 189.
Antidepressant	
Antiedemic	Economic & Medicinal Plant Research, 6: 189.
Antielastase IC50=93 um/l	

Antielastase IC50=86 ug/ml (475 uM)	
Antiescherichic	
Antiflu	Economic & Medicinal Plant Research, 5: 207.
Antigonadotropic	Jim Duke's personal files.
Antihemolytic 25 uM	Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994.
Antihepatoadenomic 200 ppm diet orl mus	
Antihepatotoxic	
Antiherpetic 50 ug/ml	
Antiherpetic EC50=>50 ug/ml	
Antihistaminic	
Antihypercholesterolemic	Economic & Medicinal Plant Research, 6: 189.
Antihyperthyroid	
Antiinflammatory	
Antileukemic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antileukotriene	
Antimelanogenic	
Antimutagenic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.18.
Antinitrosaminic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.18.
Antiphidic	
Antioxidant 50 uM	
Antioxidant IC57=30 ppm	
Antioxidant 1/3 quercetin	
Antioxidant 30 mM	
Antioxidant 1.3 x Vit. E	
Antioxidant 1/2 BHA	
Antiperoxidant IC50=44 uM	<i>Planta Medica</i> , 57: A54, 1991.
Antiperoxidant IC35=200 ug/ml	
Antiperoxidant IC85=100 ug/ml	
Antiproliferant	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antiprostaglandin	
Antiradicular 10 uM	Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994.
Antiradicular 1/3 quercetin	
Antiradicular 30 mM	
Antiradicular IC50=32-35 uM	
Antiseptic	
Antispasmodic EC50=3.4-15 uM	<i>Phytotherapy Research</i> , 4: 73.
Antistaphylococcic	
Antistomatitic	Economic & Medicinal Plant Research, 5: 207.
Antisunburn	
Antithiamin	<i>Phenolic Compounds in Food and Their Effects on Health</i> , 69.
Antithyroid	Jim Duke's personal files.
Antitumor 200 ppm diet orl mus	
Antitumor (Skin)	
Antitumor-Promoter IC42=10 uM	<i>Cancer Research</i> , 48: 5941.
Antiulcerogenic	
Antivaccinia	Economic & Medicinal Plant Research, 5: 207.
Antiviral IC50=62.5 ug/ml	
Anxiolytic	
CNS-Active	Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart</i> . 393 pp.
COX-2-Inhibitor IC32=100 uM	
Calcium-Antagonist IC50=1.2 uM rbt	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic 2% (diet)	
Chemopreventive	
Cholagogue	Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart</i> . 393 pp.
Choleretic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.</i>
Clastogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Co-carcinogenic	
Collagen-Sparing	
Cytoprotective	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Cytotoxic TC50=200 ug/ml	

Cytotoxic IC50=200 ug/ml				
DNA-Active	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
DNA-Protective				
Diuretic	Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.			
Fungicide MIC=0.4 mg/ml				
Hepatocarcinogenic 400 ppm diet or mus (in the absence of alcohol)				
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 210.			
Hepatotropic				
Histamine-Inhibitor				
Immunostimulant				
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.			
Leukotriene-Inhibitor				
Lipoxygenase-Inhibitor IC27=5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.			
Lipoxygenase-Inhibitor IC50=62-148 uM				
Lyase-Inhibitor IC50=94-164 uM				
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.			
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.			
Pesticide				
Prooxidant				
Prostaglandigenic				
Sedative 500 mg				
Sunscreen IC50=2.5 mg/l	Lazarova* G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.			
Sunscreen IC91=5 mg/l	Lazarova* G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.			
Sunscreen IC98=25 mg/l	Lazarova* G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.			
Tumorigenic	Jim Duke's personal files.			
Vulnerary				
Xanthine-Oxidase-Inhibitor IC50=39.21 uM	Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingstone, Edinburgh.			

DEHYDRODICAFFEIC-ACID-LACTONE	Plant	--	--	*
ERGOSTA-7-22-DIEN-3-BETA-OL	Plant	--	--	*
ERGOSTEROL	Plant	--	--	*

Activities (5)				
Antiangiogenic				
Antiflu				
Antitumor				
Antiviral				
Pesticide				

ERGOSTEROL-PEROXIDE	Plant	--	--	*
EUMELANIN	Plant	--	--	*
FUNGISTEROL	Plant	--	--	*
INOOIDIOL	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
INOSITOL	Plant	--	--	Foster, S. and Yue, C.-X. 1992. Herbal Emissaries: Bringing Chinese Herbs to the West. Healing Arts Press, Rochester, Vermont 05767. 356 pp.

Activities (8)				
Antialopecic				
Anticirrhotic				
Antidiabetic?	Martindale's 29th			
Antineuropathic? 2 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.			
Cholesterolytic 2,000 mg/man/day				
Lipotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Sweetener	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Ubiquiot	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.			

INOTODIOL	Plant	--	--	*
Activities (4)				
Anticarcinomic				
Antisarcinomic				
Antitumor				
Cytotoxic				
LACTONES	Plant	--	--	Foster, S. and Yue, C.-X. 1992. Herbal Emissaries: Bringing Chinese Herbs to the West. Healing Arts Press, Rochester, Vermont 05767. 356 pp.
LANOSTANIC-TRITERPENES	Plant	--	--	Foster, S. and Yue, C.-X. 1992. Herbal Emissaries: Bringing Chinese Herbs to the West. Healing Arts Press, Rochester, Vermont 05767. 356 pp.
LANOSTANIC-TRITERPENOIDS	Plant	--	--	Foster, S. and Yue, C.-X. 1992. Herbal Emissaries: Bringing Chinese Herbs to the West. Healing Arts Press, Rochester, Vermont 05767. 356 pp.
LANOSTEROL	Plant	--	--	*
Activities (1)				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.			
LUPENONE	Plant	--	--	*
LUPEOL	Plant	--	--	*
Activities (21)				
AntiEBV				
Antiangiogenic 30-50 ug/ml				
Antiedemic				
Antiflu				
Antihyperglycemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antiinflammatory 1/3 indomethacin				
Antilithic 25 mg/kg/day				
Antimalarial IC50=46.8 ug/ml	Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using Plasmodium falciparum*. Journal of Ethnopharmacology, 15: 201-209, 1986.			
Antioxalate 25 mg/kg/day				
Antioxidant 25 mg/kg/day				
Antiperoxidant 25 mg/kg/day				
Antiprostaglandin				
Antirheumatic				
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antiurethrotic				
Antiviral				
Cytotoxic 50-500 ppm				
FPTase-Inhibitor IC50=65 ug/ml				
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Pesticide				
TOPO-2-Inhibitor IC50=10.4 uM				
MELANIN	Plant	--	--	*
Activities (2)				
Antioxidant				
Genoprotective				
OBLOQUIOLS	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
POLYSACCHARIDES	Plant	--	--	Foster, S. and Yue, C.-X. 1992. Herbal Emissaries: Bringing Chinese Herbs to the West. Healing Arts Press, Rochester, Vermont 05767. 356 pp.

R-HYDROXYBENZOIC-ACID	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
SITOSTANOL	Plant	--	--	*
STEROLS	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
SYRINGIC-ACID	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').

Activities (6)

Allelopathic	
Antioxidant IC39=30 ppm	
Antioxidant 1/3 BHA	
Antiperoxidant IC10-70=100-200 ug/ml	
Antiradicular EC50=5.5-8 ug/ml	
Ubiquit	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

TANNINS	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
TARAXERONE	Plant	--	--	*
TRAMETENOLIC-ACID	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').
TRITERPENES	Plant	--	--	*
VANILLIC-ACID	Plant	--	--	Hobbs, C. 1996. 3rd Ed. (1st Ed. 1986). Medicinal Mushrooms. Botanical Press, Santa Cruz. 251 pp. (With a useful tabular summary of 'all medicinal mushrooms species').

Activities (24)

Aldose-Reductase-Inhibitor 100 uM/l	
Allelopathic	
Anthelmintic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibacterial 1.5-15 mg/ml	Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, Phytotherapy Research, 3(4), 1989, 117-125.
Anticancer	
Antifatigue	
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic IC50=25-56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antioxidant IC21=30 ppm	
Antioxidant 1/3 BHA	
Antiperoxidant IC15-65=100-200 ug/ml	
Antiradicular 7 x quercetin	
Antiseptic	
Antisickling	Planta Medica, 56(6): 681, 1990.
Antitumor	
Antitumor-Promoter	
Ascaricide	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Fungicide	
Immunosuppressant	
Laxative	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Pesticide	
Ubiquit	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

